REMARKS

In the office action, claims 1, 2, 4-6, 13, 14 and 16-18 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,208,663 (Schramm et al.); claims 3 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schramm in view of U.S. Patent No. 6,128,276 (Agee); claims 7, 8, 11 and 12 were rejected under 35 U.S.C. §103(a) as being upatentable over U.S. Patent No. 6,529,561 (Sipola) in view of Schramm; Claims 19-21 and 29-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,021,124 (Haartsen) in view of Schramm; Claims 22 and 23 were rejected under 35 U.S.C. §103(a) as being unpatentenable over Haartsen in view of Schramm and further in view of U.S. Patent No. 6,522,650 (Yonge, III et al.); Claims 9 and 10 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sipola in view of Schramm and further in view of Agee; and claims 24-28 were rejected under 35 U.S.C. §103(a) as being unpatentable over Haartsen in view of Schramm and further view of U.S. Patent No. 6,529,561 (Sipola).

The previously revised claims recite "if the collected transmissions statistics indicate a low number of retransmissions, a higher capacity encoding/data modulation scheme is selected at the particular encoding/data modulation and if the collected retransmission statistics indicate a high number of retransmissions, a lower capacity encoding/data modulation scheme is selected as the particular

encoding/data modulation".   None of the prior art references disclose these elements.

Schramm is cited as disclosing such elements.   At Column 7, Schramm discloses that if a counted number of erroneously transmitted blocks exceeds a predetermined threshold, a reduced bit rate modulation scheme is used, such as switching from 16 QAM to QPSK.   Nowhere does Schramm describe changing the modulation scheme to increase the data rate in response to a low number of retransmissions.   At Column 7, lines 9-12, Schramm describes a system that automatically for any retransmitted block, that block is forced to be at a lower data rate modulation scheme (by setting the predetermined threshold to zero).   At Column 7, line 66 to Column 8, line 11, an embodiment is described where the transmitter bases the selected retransmission modulation on various parameters. The patent clearly describes this selection as being of modulation schemes being in response to a retransmission request.   Accordingly, the selected retransmitted modulation scheme results from a failed prior transmission attempt and, accordingly, would be at the same or a lower data rate modulation scheme, based on the various described parameters.   It would make no sense to have a failed transmission of a data block and then retransmit the block at a higher data rate, which would almost assuredly again require retransmission.

Additionally, even if the modulation scheme is reset after each data block, the modulation scheme is not being increased in view of a low number of retransmission

statistics. Essentially, a block would be transmitted such as at 16 QAM each time and if a retransmission is requested it would be dropped to QPSK. Such an arrangement is an automatic increase in the modulation scheme and <u>not</u> in view of the retransmission statistics. Accordingly, the present invention would provide a much superior system for gauging the modulation/encoding. The modulation in one exemplary embodiment of the present invention can be gauged to allow for the highest data rate and still reach an acceptable quality of service. If the number of retransmissions is too high, the modulation scheme can be switched to a lower data rate scheme and as channel conditions increase the scheme is shifted to higher data rate scheme. Accordingly, the optimum scheme can be selected for various channel conditions. None of the prior art, in particular Schramm, disclose such an arrangement.

Reconsideration and entry of this amendment is respectfully requested.

Respectfully submitted,

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